## Message

From: John Persico [JPersico@Geosyntec.com]

**Sent**: 6/27/2016 8:21:02 PM

**To**: Vaughn, Stephanie [Vaughn.Stephanie@epa.gov]

Subject: FW: Rolling Knolls
Attachments: removed.txt

Hi Stephanie – following up on my voice mail, can you call me to discuss this? My office number is 609-493-9008, and my cell is 609-903-6227. Thanks.

From: Donovan, Betsy [mailto:Donovan.Betsy@epa.gov]

Sent: Monday, June 27, 2016 3:23 PM

**Subject:** RE: Rolling Knolls

To: John Persico < JPersico@Geosyntec.com>

Cc: Ricci, Richard F. <RRicci@lowenstein.com>; Alexa Richman-La Londe <ALALONDE@RIKER.com>;
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Thank you taking the time to consider our comments and propose a path forward that includes the data collection efforts you propose. More information along these lines will be useful no matter how the situation resolves itself. That said, EPA has the following concerns with MNA:

## MNA

- MNA could be evaluated in the FS and we would typically confer with HQ during the remedy selection process. Please note that HQ may have a hard time qualifying MNA since it requires source removal.
- For metals, we have a good understanding of their distribution in soil, but due to the widespread nature of contamination at a landfill its more difficult to completely address the source.
- We will likely address hot spots and contain any potential remaining sources, but we won't be able to prove the effectiveness of the remedy until after the soil has been addressed which is why we suggest a contingent remedy for groundwater.
- For other constituents (CFCs, benzene, 1,4-dioxane), although we know the general area of the landfill where they occur we haven't identified a specific source.

Because of the reasons outlined above, EPA has some hesitation to include MNA in the FS, but that doesn't mean MNA isn't a viable possibility. EPA believes that long-term monitoring of groundwater with a contingent active remedy could be a more easily justified approach.

## Background Well(s)

EPA's hydrogeologist doesn't agree that the two monitoring wells X-6 and MW-8 would serve as proper background wells since they are situated on the Site and have previously shown site-related exceedances. Installing a background well is not a time critical activity and could be accomplished after the RI.

Please include Stephanie Vaughn on any communications this week, I will be on vacation until after the fourth of July. Thanks, Betsy

From: John Persico [mailto:JPersico@Geosyntec.com]

Sent: Thursday, June 23, 2016 2:09 PM

To: Donovan, Betsy < Donovan. Betsy@epa.gov>

Cc: Ricci, Richard F. <a href="mailto:ricci@lowenstein.com">RRICCI@lowenstein.com</a>; Alexa Richman-La Londe <a href="mailto:ALALONDE@RIKER.com">ALALONDE@RIKER.com</a>;

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**Subject:** Rolling Knolls

Betsy, to follow up on our discussion this morning, we propose to revise and resubmit the Groundwater Monitored Natural Attenuation Work Plan for Rolling Knolls to address the USEPA's concerns discussed in our conference call on June 6. The revised work plan will put greater weight on collecting data to understand attenuation processes in the aquifer, rather than chemical concentration trends through time. It will also retain parts of the initial work plan intended to complete delineation of certain constituents. The revised work plan will contain the following elements:

- One round of groundwater sampling at all monitoring wells. All groundwater samples will be analyzed for
  geochemical parameters that are used to evaluate the potential for biodegradation to reduce concentrations of
  organic compounds, including: methane, sulfate, total sulfide, nitrate, nitrite, total dissolved solids, alkalinity,
  orthophosphate, total organic carbon, and dissolved organic carbon. In addition, samples from selected wells
  will be analyzed for specific constituents that were present at concentrations above New Jersey GWQCs in the
  past; for example, benzene at MW-3.
- Four soil borings (this was included in the initial work plan as well).
- Pore-water sampling to delineate CFCs observed in wells MW-10 and MW-18, and benzene observed in well MW-19 (this was included in the initial work plan as well).

Details and a schedule will be provided in a revised work plan and QAPP. The revised work plan will also address comments on the initial work plan in the USEPA's letter of May 26, 2016.

USEPA also recommended an additional background monitoring well to provide data for comparison to constituent concentrations on and downgradient of the landfill. However, we believe that monitoring wells X-6 and MW-8 are adequate for this purpose. Groundwater contour maps and analytical results are provided in Figures 6a, 6b, 6c, and 7 in the April 2016 Data Gaps Tech Memo. Wells X-6 and MW-8 are upgradient of the landfill, in areas where no landfilling has occurred. PCBs were detected in a groundwater sample from well X-6 in 2007. However, they have not been detected in 4 subsequent sampling events at this well, and are not present in soil in this area. Therefore, the 2007 result seems anomalous.

Generally, groundwater flow beneath the landfill is away from these wells. Groundwater elevations at some nearby wells (e.g., X-5 and MW-11) are slightly higher than at well X-6 and MW-8, but the overall flow direction is to the east, not towards wells X-6 and MW-8. Furthermore, constituents of concern are not present at levels above GWQCs in wells X-5 or MW-11 (other than naturally occurring metals) so any groundwater flow from these wells should not have a significant impact at wells X-6 and MW-8. Based on this information, we do not propose an additional background well at this time.

Please let me know if you have any questions.

John L. Persico, P.G. Office 609 493 9008

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